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## REMARKS

### Summary

Claims 1-6 were pending. No new matter has been added as a result of this amendment.

### Rejection of Claims

In the outstanding Office Action, the claims have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,893,625 to Tamatani et al. ("Tamatani") in view of U.S. Patent No. 4,832,467 to Miyagi et al. ("Miyagi"). The rejections under 35 U.S.C. § 103(a) are respectfully traversed.

Claims 1-3 are each directed to a liquid crystal display device comprising a pair of substrates with liquid crystal disposed therebetween and a reflective metal film disposed on a surface of one of the substrates. Each of these claims further recites that the reflective metal surface is not formed on a specific portion of the substrate. This portion is adjacent to the injection portion in the sealing material as recited in Claim 1, is adjacent to the drawn electrode region as recited in Claim 2, or is adjacent to the region in which the second drawn electrode and the display electrode of the other of the substrates are connected to each other on the sealing material, as recited in Claim 3. Moreover, each of these claims recites that the portion of the substrate that does not include the metal reflective surface provides an inspection area for the visual inspection of the injection portion (claim 1) or the drawn electrode regions (claims 2 and 3).

In conventional liquid crystal displays comprising reflective metal surfaces, the reflective metal surface typically extends across the entire surface area of the substrate. Because the reflective metal surface is opaque, numerous problems relating to the manufacture and inspection of such devices have been encountered. One advantage of the arrangements recited in the pending claims is that, by limiting the coverage of the reflective metal surface to only a portion of the surface of the substrate, the inspection area is able to be viewed and/or shorting of the electrodes by the reflective metal surface is eliminated.

1) In rejecting these claims, the Examiner combines Tamatani and Miyagi. However, Applicants submit that the combination of these references is improper. Miyagi expressly teaches away from an arrangement using a liquid crystal and thus the teachings of Tamatani. Miyagi teaches a non-glaring mirror for a car, while Tamatani teaches a reflective LCD for use in electronics. While these are entirely different fields, Miyagi further specifically sets forth, in the background of his patent, that the use of liquid crystals is to be avoided in mirrors due to multiple disadvantages. The disadvantages that are enumerated by Miyagi include blurring of reflected images when using the reduced reflectance mode of the mirror, difficulty in sufficiently lowering the reflectance, and invariance of the color tone of the mirror in the reduced reflectance mode. To combat these disadvantages, the entire disclosure of Miyagi is directed to electrochromic non-glaring mirrors in which the space between the two substrates is filled with an electrolyte liquid, and not a liquid crystal as recited in the pending claims.

For at least this reason, Claims 1-6 are patentable over the cited references.

2) Even if these references were somehow combined against the express teachings of one of the references, the references still fail to disclose the elements recited in the pending claims.

Applicants agree with the Examiner that Tamatani fails to disclose or suggest a reflective metal film formed on the surface of one of the substrates.

Miyagi does not anticipate or suggest that the metal reflective film is not formed on the specific portions of the substrate recited in claims 1-3. More particularly, Miyagi does not anticipate or suggest that the metal reflective film is not formed, for example, adjacent to an injection portion in the sealing material. In fact, Miyagi does not even anticipate or suggest an injection portion, the relationship between the injection portion and the metal reflective film, or any problems in manufacturing the mirror that would require the metal reflective film to not be formed adjacent to the injection portion.

3) Moreover, each of the pending claims recites that the portion of the substrate that does not include the metal reflective surface provides an inspection area for the visual inspection of the injection portion (claim 1) or the drawn electrode regions (claims

2 and 3). The Examiner states that because this is a functional limitation, it is entitled to no patentable weight.

Applicants submit, however, that the pending claims recite a structural rather than functional limitation. The pending claims do not positively recite that a visible inspection must be performed, but instead recite limitations of the arrangement that exist if a visible inspection is performed. The physical limitations to the arrangement are that they each provide an inspection area (and thus the respective portions recited in the claims are visible).

Even if the Examiner insists that these limitations are functional, Applicants respectfully submit that merely because a limitation may be functional, does not mean that it automatically has no patentable weight. Applicants direct the Examiner's attention to MPEP 2173.05(g), which states in part that:

"... A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step...

It was held that the limitation used to define a radical on a chemical compound as "incapable of forming a dye with said oxidizing developing agent" although functional, was perfectly acceptable because it set definite boundaries on the patent protection sought. *In re Barr*, 444 F.2d 588, 170 USPQ 33 (CCPA 1971).

In a claim that was directed to a kit of component parts capable of being assembled, the Court held that limitations such as "members adapted to be positioned" and "portions . . . being resiliently dilatable whereby said housing may be slidably positioned" serve to precisely define present structural attributes of interrelated component parts of the

claimed assembly, *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976).”

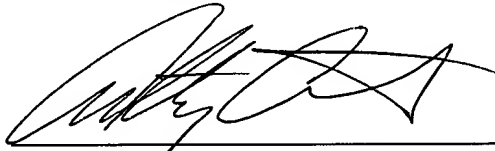
4) The Examiner has asserted that it would have been obvious to not form the reflective film on areas adjacent to the display region “so as to distinguish the brightness between the display region and the non-display region.” However, such a suggestion or motivation is nowhere apparent in the cited references. Miyagi in particular, does not even mention brightness differences between display and non-display regions, not to mention anything about changing the shape of the reflective film to alter the brightness of different regions. Furthermore, Applicants submit that such motivation is not apparent as at least in a portion of such a non-display area, brightness cannot be altered as no reflection is seen (e.g. underneath the sealing material). Nor do the visual inspection areas recited in the present claims have anything to do with the brightness of the display region. If the Examiner continues to assert such a motivation, Applicants respectfully submit that the Examiner provide a reference for such a suggestion in the art of LCDs.

For all of the reasons above, none of the cited references, alone or in combination, anticipate or suggest the arrangement of Claims 1-3. Thus, Applicants submit that the pending claims are patentable over the cited references.

## Conclusion

In view of the claim arguments above, Applicants submit that all of the pending claims are in condition for allowance. If for any reason the Examiner is unable to allow the application in the next Office Action and believes that a telephone interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned agent or attorney.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Anthony P. Curtis', written over a horizontal line.

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